CREATING AWARENESS ON ORGANIC WASTE MANAGEMENT PRACTICES AMONG SELECTED RURAL HOUSEHOLDS

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INTRODUCTION

Agriculture, often referred to as the backbone of many economies, serves as both an art and a science, reshaping the Earth's surface through the cultivation of crops and the raising of livestock. In India, agriculture holds particular significance, contributing substantially to the nation's GDP and employing a vast portion of its population. Over the years, Indian agriculture has undergone remarkable growth, fueled in part by the Green Revolution of the 1960s, which significantly boosted crop production, particularly of rice and wheat.

However, this increased productivity has come at a cost. The heavy reliance on chemical fertilizers and pesticides has led to unintended consequences, including soil degradation, environmental damage, and threats to human health. The overuse of inorganic fertilizers has resulted in soil alkalinity, depletion of beneficial microbes, and reduced fertility, ultimately diminishing crop yields. Furthermore, the indiscriminate use of pesticides has led to environmental pollution and the development of resistance among pests, exacerbating the problem.

In response to these challenges, sustainable agriculture has emerged as a global priority, aiming to meet current human needs while safeguarding environmental quality and natural resources for future generations. Sustainable agriculture encompasses various practices aimed at mitigating the negative impacts of conventional farming methods, such as organic farming.

Organic farming represents a holistic approach to agriculture, emphasizing soil health, biodiversity, and ecological balance. By eschewing synthetic inputs and embracing natural techniques like intercropping, mulching, and integrated pest management, organic farming seeks to maintain the long-term viability of agricultural systems while minimizing harm to the environment. However, the widespread adoption of organic farming practices faces obstacles, including a lack of awareness and understanding among farmers.

A key research gap identified in this field pertains to the knowledge and training needs of farmers regarding organic farming technologies. While organic fertilizers, growth enhancers, and pest control methods exist, many farmers lack the necessary expertise to effectively utilize these inputs. This knowledge gap impedes the transition to sustainable agricultural practices, hindering efforts to conserve natural resources and promote environmental sustainability.

To address this gap, comprehensive training programs are needed to educate farmers about organic farming techniques, from preparation to application. By empowering farmers with the skills and knowledge required to adopt organic practices, these programs can facilitate the transition towards more sustainable and environmentally friendly agricultural systems. Moreover, by promoting awareness and understanding of organic farming principles, such initiatives can help foster a culture of sustainability within the agricultural community.

In conclusion, agriculture plays a vital role in sustaining human life and supporting economic development. However, the conventional methods employed in agriculture have led to significant environmental degradation and health concerns. Sustainable agriculture,

particularly organic farming, offers a promising alternative, emphasizing resource conservation, environmental stewardship, and long-term viability. By addressing the knowledge gap surrounding organic farming practices, we can pave the way for a more sustainable future for agriculture, ensuring food security and environmental integrity for generations to come.

General objectives: to

- enhance the health of the people living in the selected rural areas.
- reduce environmental pollution and make rural areas clean.
- promote recycling and reuse of organic waste as organic farming inputs.

Specific objectives include: to

- assess the current agricultural patterns and organic waste management practices in the selected households.
- develop a training programme to educate farmers about organic farming practices.
- provide organic farming skill training to selected farmers .
- evaluate the impact of the training programme conducted.

Hypotheses framed for the study

- The average knowledge scores do not prove any significant difference before and after the training programme.
- The average attitude scores do not confirm any significant differences before and after the training programme
- Training will significantly improve the acceptance of organic farming practices among farmers.

Study Limitations

- During the block-level training programme, the number of farmers was limited.
- Transportation constraints limit field visits.

Inclusion criteria

Farmers who own agricultural land and also interested in organic farming

Farmers can improve their agricultural practices and save food crops, money, and health status by using organic fertilizer, growth boosters, and pesticides, which will undoubtedly lead the nation to prosperity.

REVIEW OF LITERATURE

The literature about the study "**Impact of Training on Organic Farming Practices among Selected Rural Households" provides a comprehensive overview of key aspects related to organic farming and its implications. agriculture's significance as a vital sector for food production, livelihoods and economic development, underscoring its role in ensuring food security and supporting rural communities. Organic farming is defined and highlighted as an alternative practice promoting sustainability, soil health biodiversity, and environment conservation, contrasting with conventional methods.**

According to Dey et al., (2021) states that Agriculture is the foundation for the survival and development of human beings. In between the period of 7500 B.C. to 6500 B.C., man gradually shifted to agriculture from hunting and gathering. So, there is a prolonged process of development in agriculture. Agriculture has gone through three stages: 1. Primitive agricultural stage, 2. Traditional agricultural stage and 3.Modern agricultural stage. In traditional agriculture extensive use of farmyard manure and green manures to improve soil fertility; and to control insect-pests measures like crop rotation, natural enemies & hand controls were done. In Modern agriculture large-scale use of agricultural chemicals such as chemical fertilizers, pesticides, insecticides, and growth regulating agents lead to ecological damage and environmental pollution. The utilization of chemical fertilizers and pesticides in agriculture presents several drawbacks, including environmental pollution, soil degradation, health risks, and the development of resistance in target pests. However, Standard Operating Procedures (SOPs) offer a structured approach to mitigate these disadvantages. SOPs provide guidelines for the safe handling, application, and management of chemical inputs, ensuring regulatory compliance and minimizing risks to human health and the environment. By incorporating integrated pest management strategies, monitoring and record-keeping protocols, and training initiatives, SOPs promote sustainable farming practices that reduce reliance on chemical inputs while optimizing pest control and nutrient management. Through adherence to SOPs, farmers can effectively address the challenges associated with chemical fertilizers and pesticides, fostering a more environmentally friendly and resilient agricultural system. To get rid of the series of environmental, safety, and health problems brought by modern agriculture, organic agriculture came into existence. Organic agriculture is the sublimation of traditional agriculture. The basic concept is to maintain the sustainable development of agriculture and minimize the environmental impact, so it could rapidly develop and promote in the whole world.

The Indian Council of Agricultural Research (ICAR) acknowledges the pivotal role of food processing as a vital link between agriculture and the food industry. Recognizing its significance, it emphasizes the need to promote food processing technologies and practices to add value to agricultural produce, reduce post-harvest losses, and enhance food security. By transforming raw agricultural products into value-added food items, food processing not only extends the shelf life of perishable commodities but also improves their nutritional content, taste, and accessibility, thereby contributing to improved public health outcomes.

Agriculture, encompassing crop production, livestock farming, and allied activities, has long been a major contributor to India's GDP. While its share in the overall GDP has gradually diminished with the rise of the industrial and services sectors, it remains a substantial contributor, accounting for a significant portion of the national income. The economic importance of agriculture is evident in its direct and indirect contributions to various economic activities and the overall prosperity of the nation (Dev, 2019).

Agriculture is indispensable in ensuring food security for India's vast and diverse population. The sector produces a wide array of crops, including cereals, pulses, fruits, and vegetables, forming the core of the nation's food supply. The ability to feed the growing population depends heavily on the productivity and sustainability of agriculture. Government policies and initiatives are geared towards achieving self-sufficiency in food production, thereby enhancing food security (Verma et al., 2017).

India's agriculture has experienced setbacks due to excessive use of fertilizers, insecticides, fungicides, and herbicides, leading to soil fertility decline, water resource pollution, and food grain contamination. Organic agriculture is crucial for sustainable

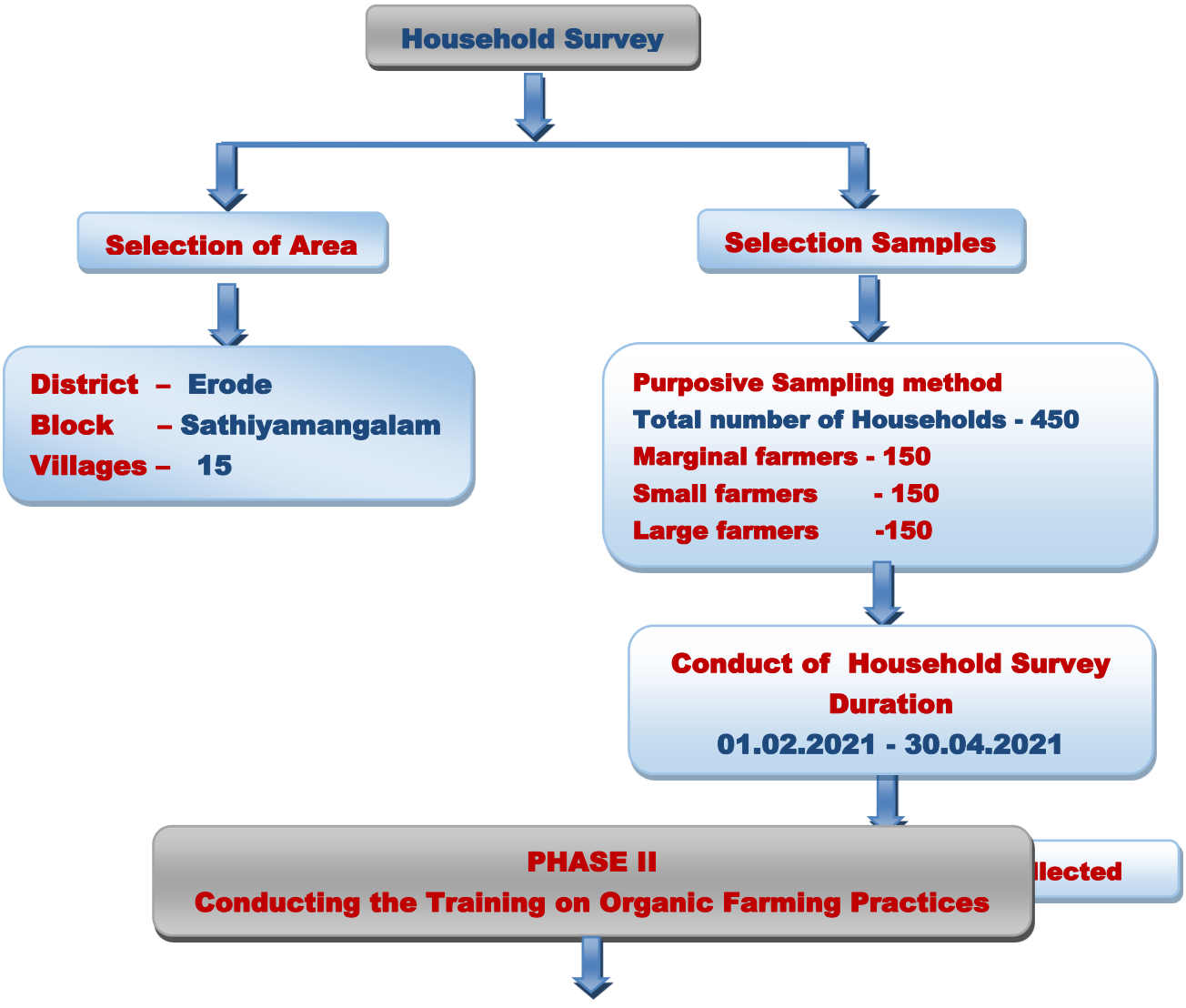
agriculture and addressing environmental degradation, unsafe food, water pollution, degraded land, and various illnesses caused by unsustainable practices (Patel et al., 2020).

All the existing review of literature pertaining to the present research concluded that the study highlights the knowledge gap among farmers regarding organic farming technologies, such as organic fertilizers, growth boosters, and pesticides. This lack of understanding hinders widespread adoption of these practices, which promote sustainability and environmental conservation. To address this, the study proposes a comprehensive training programme to equip farmers with the necessary skills to integrate organic farming technologies into their operations. This not only benefits individual farmers but also contributes to broader sustainability goals in agriculture, such as reducing environmental pollution and improving soil health.

METHODOLOGY

The research design for the study on "**Impact of Training on Organic Farming Practices among Selected Rural Households" Consisted of the following aspects:**

A. Household Survey
B. Conducting the training on organic farming practices
C. Evaluating the Impact of the Training Programme Conducted



A. Developing the course content

Course content

- Importance of Agriculture
- Addressing existing agricultural practices and problems
- Organic farming is essential for ensuring agricultural sustainability.
- Organic pest and disease management methods

Major thrust areas

- Organic waste into Organic fertilizer
- Organic growth booster
- Organic repellent

B. Conduct of a training programme

Trainees selected
450 farmers

Stages of Training

Block Level

6 days (once in a month for a period of 6 months)

Selected 450 Trainees

Village Level

5 days Trainees + Interested farmers in villages

Methods and Aids

Methods

- Meetings and Special Lectures
- Explore Exhibitions and Demonstrations
- Group Discussions and Field Visits

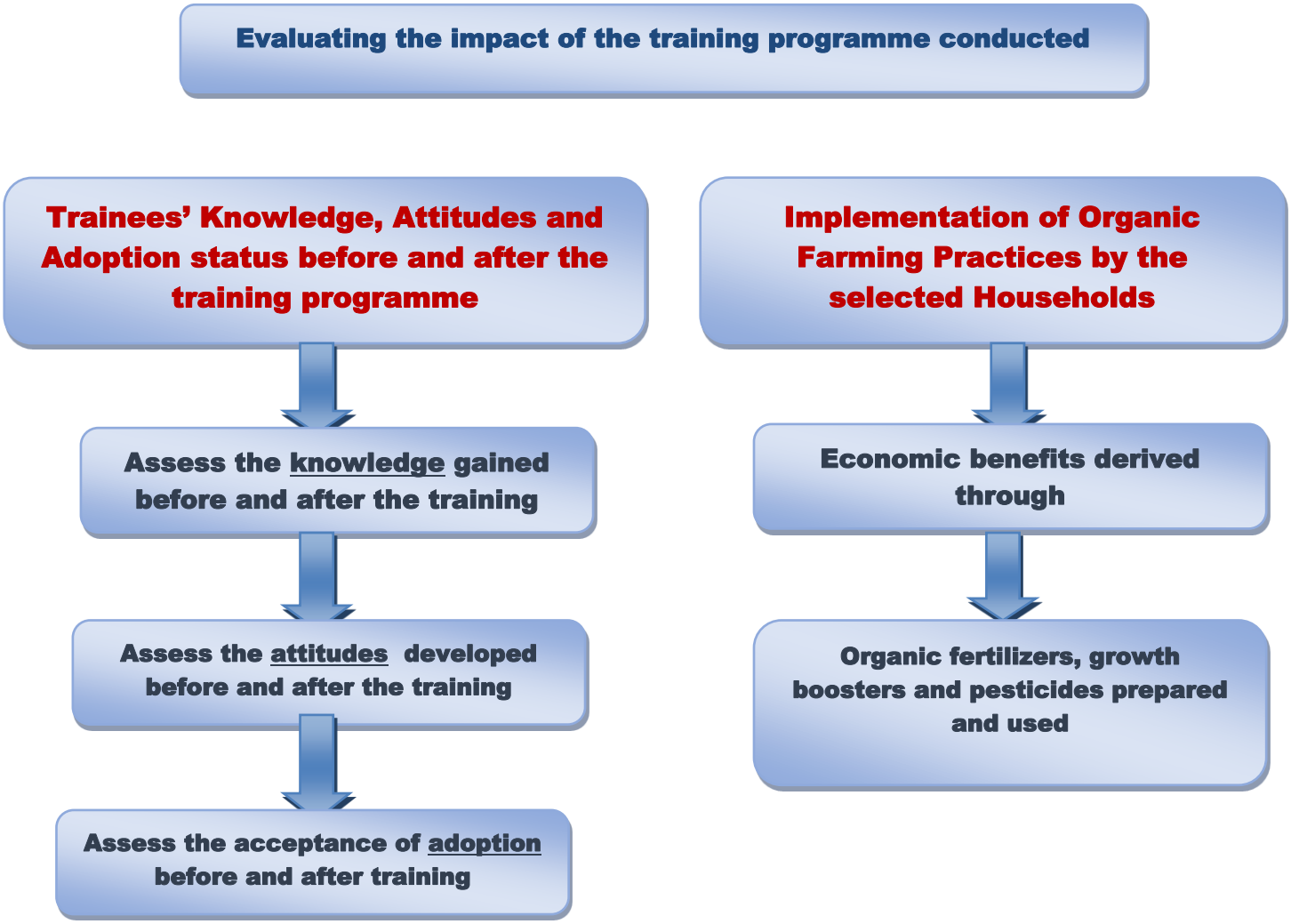
Aids

- Charts
- Posters
- Leaflets
- Pamphlets
- Training Manual

Duration of training

One year

PHASE III


Evaluating the impact of the training programme conducted
Trainees' Knowledge, Attitudes and Adoption status before and after the training programme
Assess the knowledge gained before and after the training
Assess the attitudes developed before and after the training
Assess the acceptance of adoption before and after training
Implementation of Organic Farming Practices by the selected Households
Economic benefits derived through
Organic fertilizers, growth boosters and pesticides prepared and used

1. **Household Survey**

Survey research is defined as "the collection of information from a sample of individuals through their responses to questions." (Alam, 2021) This type of research allows for a variety of methods to recruit participants, collect data, and utilize various methods of instrumentation. Researchers give household surveys to a sample of households in a population. They offer the interviewer considerable discretion regarding the information requested by respondents. (Wolff, 2021). Researchers conducted a household survey to understand the existing agriculture farming and organic waste management practices, as well as the availability of botanicals in the selected villages. The household survey included the following steps:

1. Selection of Area

2. Selection of Villages

3. Selection of Samples

4. Selection of Method

5. Framing of Research tools

6. Conduct a Survey and

7. Analysis and Interpretation of the Data Collected

1. Selection of Area

India is an agriculturally important country. Two-thirds of the population engages in agricultural activities. Agriculture is a primary activity that produces most of the food for consumption. Besides food grains, it also produces raw materials for various industries. Over the years, cultivation methods have changed significantly depending on physical environment characteristics, technological know-how, and socio-cultural practices. Farming varies from subsistence to commercial. Researchers selected Sathyamangalam Block in Erode District due to the availability of agriculture production and organic waste. Erode is a highly progressive district in Tamil Nadu. It is one of the forerunners in the state in terms of agriculture and industrial activities. Erode District generates 128 MT/day of organic waste. The main theme of the present study is converting organic waste into organic fertilizers, boosters, and pest repellents. For this study, we selected Sathyamangalam as the area. **Selection of Villages.**

After scrutinizing the village-wise records maintained in Sathiyamangalam blocks, 15 villages were selected for the study that produce surplus cereal, pulses, and vegetables.

3. Selection of Samples

The success of any study depends on careful sample selection. Researchers must base their sample selection on factors such as the nature of the study, the size of the universe, the size of the sample, the degree of precision desired, and the availability of resources (Bihu, 2021).

In this study, a purposive sampling procedure was followed to select the samples. Whitehead & Whitehead (2020) define purposive sampling as deliberately selecting the desired number of sample units based on the object of inquiry. Purposive sampling enables researchers to exercise good judgment and employ an appropriate strategy to select cases that meet the research needs satisfactorily (Priatna, 2021). Each village contributed ten farm households from marginal (up to 2 ½ acres), small (2 ½ to 5 acres), and large (above 5 acres) land holdings, totalling 450 households across all 15 villages.

4. Selection of Methods

The interview and observation methods were adopted for the collection of data. An interview is a two-way method that permits the exchange of ideas and information. It is a unique method because it involves collecting data through direct verbal interaction between the interviewee and the interviewer (Shabani, 2021). This method offers greater depth, support, flexibility, clarity, and stimulation for the respondent to give a valid answer (Ranjit Kumar, 2019). Through personal interviews and a questionnaire, researchers surveyed farmers about organic farming and organic waste management practices.

Researchers subject the observation method to checks and controls for validity, reliability, and precision. This technique is very useful for extensive inquiries and generally yields dependable results. A systematic observation during the interview also contributed to the data's accuracy. Therefore, the interview and observation methods were used to gather details relevant to the study

5. **Framing of Research Tool**

The researchers used an interview schedule as the tool for this study. William and Paul (2017) state that the schedule assists in data collection by sending enumerators with schedules to respondents, presenting questions in the order listed, and recording replies in the designated space. To collect details related to this study, it was necessary to include in the schedule questions that would help to elicit information on the socio-economic profile of the sample, types of crops cultivated, problems faced, and measures undertaken to solve the problems. Researchers carefully drew a schedule to elicit the required information.

To check the validity and reliability of the schedule, pretesting was done through a pilot study. As mentioned by Shehadeh et al. (2020), the pilot study helps in improving data collection routines, trying scoring techniques, revising locally developed measures, and checking the appropriateness of standard measures. The schedule was finalized after a pilot study was conducted in 45 farm households, 15 from each of the three categories. Subject experts from Tamil Nadu Agricultural University and the Food Science and Nutrition Department, Avinashilingam Deemed to be University, Coimbatore, reviewed the questionnaire.

6. Conduct of Survey

Gupta (2015) states that a personal interview effectively initiates an informal verbal and non-verbal conversation for a specific purpose, focusing on certain planners' content areas. Hence, the personal interview method was chosen to find the required information from the farmers. The finalized schedule facilitated surveying 450 households, with 150 from each of the three categories. The farmers were contacted personally, one at a time, at their convenience. Explaining the study's purpose and the organization that supports it created rapport. The researchers thus instilled confidence in the respondents. Face-to-face relations with the homemakers helped to build confidence, develop goodwill, establish a good rapport, and explain the objectives of the study.

7. Analysis and Interpretation of the Data Collected

Once the data have been obtained from either a primary or secondary source, the next step in a statistical investigation is to edit the data, i.e., scrutinise the same. The primary data should be complete, consistent, accurate, and homogenous when edited (Gupta, 2015). After collecting the data, researchers must process and analyze it according to the outline established during the development of the research plan (Mezmir, 2020). The first step in the analysis is to classify and tabulate the information collected. The classification and tabulation may provide a clear picture of the significance of the arranged material.

B. Conducting the Training on Organic Farming Practices

It is critical to enrich rural people's personal lives, health, and well-being through adequate and appropriate training, consultation, and adoption. Enhancing a family's productive potential and quality of life through effective improvements in their occupational and technical know-how contributes to overall economic development. After examining the problems experienced in agricultural practices, it was decided to educate farmers on organic farming practices . The steps included were:

1. Selection of farmers
2. Formulation of a training curriculum on organic farming practices
3. Organization of the training programme
4. Follow-up on the training programme

1. Selection of farmers

During the household survey, the investigator found that in the selected households, men play a major role in agriculture and allied activities. Hence, all 450 men from the selected households were considered trainees for this training programme.

2. Formulation of the training curriculum on organic farming practices

A training curriculum was formulated based on the problems farmers faced due to pests and diseases revealed from the household survey. Table I shows the course content, methods, and aids used during the training programme while Table II shows the major thrust areas covered with pictorial representation. **Organization of the training programme**

Training is the face-to-face interaction between the members. It helps to gain more practical and theoretical knowledge. Training is a planned communication process that primarily aims to provide the skills, knowledge, and attitude required by specified objectives related to the desired pattern of behaviour (Oinas-Kukkonen, & Harjumaa, 2018). The training is planned in two stages.

1. Training of trainers
2. Training at the village level

1. Training of trainers

A team of 30 farmers per village, representing 10 each from the marginal, small, and large categories, which constituted a total of 450 farmers, was selected from all 15 villages in Sathiyamangalam block based on their initiative and willingness to popularise the knowledge acquired through training to other members. These farmers came from households with surplus food grain production.

During the first phase of the Block Development Office, the trainers provided training to the selected farmers. Once a month for six months. They received training on organic farming practices for sustainable agriculture. The purpose of the study and the training programme were explained to them, and their cooperation was sought for the success of the programme. The trained farmers serve as an effective media, approaching farmers to make them aware of organic agricultural methods and finally transferring their knowledge on agricultural methods to other members of their respective villages.

2. Training at the village level

Trained farmers organized a five-day camp at the village level in all the selected villages for the community at the local schools. Organic farming was highlighted in the training programme for sustainable agriculture**.** The investigator also participated in the training. The trainers were given suggestions on how to improve their training effectiveness. Experts from TNAU and other experienced field workers helped the farmers gain practical exposure to preparing organic fertilizers, boosters, and pesticides.

The researcher coupled all forms of extension methods individual, group, and mass with different media of communication to create awareness among the farmers about organic agricultural practices. The tools used for the training programme were special lectures, participatory discussions, exhibitions and demonstrations, and field visits.

Evaluating the Impact of the Training Programme Conducted

Evaluation measures the effectiveness of a program in achieving its goals. It involves appraising outcomes and determining changes attributable to the intervention, such as the impact of organic farming training.

The impact of the training programme on organic farming practices among selected rural households was assessed in terms of

A. knowledge gained, attitudes developed and acceptance of adoption by the famers

B**.** Organic farming's level of adoption by the selected households

1. Knowledge gained

Knowledge gained Learning is a continuous process. We should crave farming, where we apply our knowledge for the upliftment of the downtrodden and the betterment of society. Trainers possessed a certain amount of information regarding organic agricultural practices both before and after the training. Assessing the extent of knowledge gained involved using a knowledge check or inventory with questions covering various aspects like the agricultural situation in India, the effects of chemical farming, the importance of organic agricultural practices for sustainability, and organic pest and disease management methods. The mean scores, pre- and post-exposure, were recorded, and the ‘t’ value was calculated to test the significant difference between the two sets of exposures.

2. Attitudes developed

“The greatest discovery of my generation is that a human being can alter his life by altering his attitude.” -William James To find the right reflection of the farmers attitude towards organic farming practices, attitude check or inventory was framed with 25 questions covering various aspects organic farming practices. Summarizing the responses obtained against each item, a 't' test was conducted to identify any significant differences in the attitudes of farmers before and after the training periods.

3. Acceptance of adoption of organic farming practices

To find the right reflection of the farmers acceptance and adoption towards organic farming practices, acceptance check or inventory with 25 questions covering various aspects organic farming practices was framed. Summarizing the responses obtained against each item, a 't' test was conducted to identify any significant differences in the acceptance status of farmers before - and after the training periods.

B. Level of adoption of organic agricultural practices by the selected households

The impact of the training programme was assessed after a period of six months to one year, that is, the period necessary for one cropping. The researcher periodically monitored the adoption level through frequent visits to the villages. The farmers were instructed on all aspects of safe production and cultivation to control insects and pests on food grains by using organic fertilizers, boosters, and pesticides. The researcher directly observed the selected households putting their knowledge into practice as part of the evaluation process. The researcher estimated the economic benefits of organic compost, boosters, and pesticides prepared and used by the selected households. The selected farmer's experience led to the development of the quantification formula. Apart from these, the researcher also collected responses from the households regarding the feasibility and acceptability of organic farming practices.

IV RESULTS AND DISCUSSION

The findings of the study on **"Impact of Training on Organic Farming Practices among Selected Rural Households"** are discussed and presented under the following headings:

A. HOUSEHOLD SURVEY

B. IMPACT OF TRAINING ON ORGANIC FARMING PRACTICES AMONG THE SELECTED RURAL HOUSEHOLDS

A . HOUSEHOLD SURVEY

Household surveys collect socio-demographic data on living conditions, welfare, demographics, and cultural factors. Administered through questionnaires, they offer interviewer discretion, aiding comprehensive data collection.Here are the sections presenting the analysis of the household survey results:

1. Demographic Profile of the Selected Households
2. Agricultural Farming Practices in the Selected Households
3. Organic Waste Management Practices in the Selected Households

1. Demographic Profile of the Selected Households

Demographics refer to the description or distribution of characteristics for a target audience, customer base, or population. Demographic data can help us understand communities in their current state, their past, and their future direction. It can be a powerful tool for tracking change over time and identifying a community's needs or strengths. Examine the family's age, marital status, type of family, educational qualification, occupation, and monthly income of the family in the demographic profile. This was done because it was expected that a variety of demographic factors would influence the respondents' choices. Table III explains the demographic profile of the selected households.

Agricultural Farming Practices in the Selected Households

Under the following headings, the aspects of existing agricultural farming Practices by the selected households are discussed:

a. Type and size of land holdings
b. Types of food crops cultivated
c. The frequency at which crops are cultivated
d. Types of fertilizers used for cultivation
e. The average amount spent on fertilizers
f. Difficulties faced during cultivation
g. Common pest identified in the field
h. Common diseases identified in the field
i. Pesticides used to control pests
j. The average amount spent on pesticides.
k. Problems faced by using inorganic fertilizers and pesticides
l. Existing organic agricultural practices

a. Type of soil and size of land holding

The major types of soil in Sathyamangalam Block, Erode District are Red Sandy Soil, Red Loam, and laterite soil. More than the type of soil, the selection of crop to cultivate is according to the water availability in the region. The crops pattern changes from place to place and also depends on the soil. The land in general is divided into Wet Area, Dry Area, and Semi-Arid .The Department of Agriculture, Tamil Nadu (2021), categorized farmers into three types. Marginal farmers – up to 2 ½ acres , Small farmers – 2 ½ to 5 acres, Large farmers – above 5 acres study

b. Type of food crops cultivated

The cropping pattern refers to the proportionate area under different crops. Since there are no perennial rivers in Tamil Nadu, water availability is not the same throughout the year.

c. The frequency at which crops are cultivated

Paddy was cultivated twice a year by 72 percent of the large, 39 percent of the small, and 21 percent of the marginal farmers. Maize, black gram, green gram and horse gram were cultivated twice a year by the large farmers. All the marginal and small farmers cultivated maize, black gram, green gram and horse gram only once a year. All the marginal, small, and large farmers cultivated ground nuts only once a year. Vegetables and greens were cultivated four times a year by all the types of farmers.

d. Types of Fertilizers used for cultivation per crop

Chemical fertilizers like Urea, DAP, and SSP were the most used fertilizers in the field, as the consequences and downsides of the unintentional and excessive usage of chemical fertilizers caused soil degradation, groundwater contamination, salt burns, excessive growth, pollution, over-fertilization and PH balance troubles. If not managed and applied effectively, chemical fertilizers can impact production cycles, soils, and surfaces in intensive agriculture.

e. Fertilizers used and amount spent for cultivating crops per cropping

From the above table, it was evident that, the marginal farmers spend about **Rs.3370**/- to purchase chemical fertilizers per cropping, while the small farmers and large farmers spend about **Rs. 5680**/- and **Rs.10,300**/- respectively. The marginal farmers spend comparatively less amount for fertilizers and pesticides due to its high cost and also because of the fact that they own only less land.

f. Difficulties Faced during Cultivation

The challenges encountered by households engaged in agriculture, categorized as marginal, small, and large, revealed distinct patterns and concerns. All the farmers stated that pest attacks were the major problem during cultivation and also during storage, with percentages indicating 86 per cent in marginal, 96 per cent in small, and 85 per cent in large households. This underscores the universal struggle to mitigate the impact of pests on crops.

g. Common pests identified in the field

The common pests identified in the crops were white worm, green worm, caterpillar, white fly, stem borer, and leaf folder. In and around Tamil Nadu, the common pests that attack the crops are leaf folder stem borer pest, green leaf hopper, bollworm, white fly, and leaf miner, as stated by TNAU. The selected household also expressed this. Figure 4 shows the common pests found in the field.

h. Common diseases identified in the field

The occurrence of diseases in tomato crops presents distinct patterns across marginal, small, and large households, with each category facing varying degrees of challenges. Wilt in tomato plants was notably prevalent in marginal households, constituting 56 percent, while small and large households report lower percentages of 44 percent and 34 percent, respectively. Cercospora leaf spot was less widespread, with marginal households experiencing a slightly higher incidence at 17 percent compared to nine in small households and six in large households.

i. Pesticides used to control pests

Pesticide application in marginal, small, and large households showed distinct patterns. Copper sulphate, a common pesticide, was widely utilized across all categories, with percentages reflecting 85 per cent in marginal, 82 per cent in small, and 89 per cent in large households. The pesticide deltamethrin is prevalent, increasing proportionally with household size, reaching 81 per cent in large households, compared to 72 per cent in marginal households and 77 per cent in small households.

j. The average amount spent on pesticides

The above table shows that marginal, small, and large farmers spend about **Rs. 9900/-, Rs. 15,590/-, and Rs. 29,110/-,** respectively, to purchase chemical pesticides to control pests and diseases in the field per crop. The farmers expressed that even though they were using chemical pesticides to control pests, they were still not able to safeguard the food crops completely from pest attacks.

k. Problems faced by using inorganic fertilizers and pesticides

Individuals in the study reported various health problems. Headaches was the most frequently mentioned issue, with a prevalence of 88 per cent, followed closely by eye irritation at 86 per cent, and rashes and itching at 80 per cent. Nausea and vomiting was reported by 66 per cent of the participants, while allergies affected 64 per cent. Wheezing was noted by 48 per cent of individuals, and diarrhea had a reported incidence of 34 per cent. Bassi et al., (2016) also pointed that most farmers experienced reddening of eyes and allergy such as sneezing and rheum when they used inorganic agrochemical fertilizers in their farm in Nigeria.

l. Existing organic agricultural practices in the selected households

India's growing population has led to increased use of high-yielding crops, resulting in increased use of fertilizers and irrigation. This has led to weeds, insects, and pests, affecting crops and produce. The country's economy relies on rainfed agriculture, which feeds humans, animals, and the environment. However, this approach destroys soil health, increases environmental pollution, and increases pesticide toxicity. Researchers are considering organic farming as a sustainable alternative to chemical farming, which can generate high-quality feed while conserving soil and environment health. conventional systems

3. Organic Waste Management Practices in the Selected Household

In rural areas, waste is a severe threat to public health and cleanliness. Despite the waste generated being predominantly organic, incorrect disposal leads to serious problems, including an increase in water-borne and vector-borne diseases. Waste is nowadays considered one of the leading environmental problems of the modern world. Due to the increasing amount of waste generated as a result of human activities, one of the specific objectives of environmental protection is proper waste management. If waste is not managed properly, the problem of waste could be a huge burden for future generations. Introducing citizens to the need for adequate waste management is necessary because citizens are the greatest generators of utility waste (Rathee and Dalal, 2018).

The findings of the existing organic waste management practices in the selected households are discussed under the following headings:

a. Average quantity of waste produced by the selected households
b. The type of bin used to collect organic waste
c. The frequency of waste disposal
d. Methods of disposing of the waste
e. Problems faced due to the accumulation of household waste
f. Methods of reusing household waste
g. Reasons for improper disposal of waste
h. Need for clean environment

a. **Average Waste Production**: Waste production varies between developed and developing countries, with management challenges even for small quantities (Brunner and Rechberger, 2015). In Sathiyamangalam Block, the average daily waste production per household is recorded.

b. **Type of Waste Bin**: Plastic bins are commonly used for waste collection due to their availability, affordability, and ease of handling (Evodet et al., 2021).

c. **Waste Disposal Frequency**: Disposal frequency is determined by waste generation, with different waste types disposed of on varying schedules (Adapted from source).

d. **Waste Disposal Methods**: Household waste disposal methods employed by homemakers are depicted.

e. **Issues from Waste Accumulation**: Accumulated waste leads to environmental degradation and health risks, including clogged drainage and water contamination (Adapted from source).

f. **Household Waste Reuse**: Reusing waste through methods like recycling helps conserve resources and reduce landfill usage.

g. **Reasons for Improper Waste Disposal**: Factors contributing to improper waste disposal include laziness (85%) and lack of environmental awareness (82%) among community members (Adapted from source).

h. Need for clean environment

Clean environment is crucial for health and well-being. Farmers overwhelmingly agree that it promotes healthy living, mental relaxation, and life satisfaction.

IMPACT OF TRAINING ON ORGANIC FARMING PRACTICES AMONGTHE SELECTED RURAL HOUSEHOLDS

Assessing the impact of training courses is crucial for verifying quality and effectiveness. It involves identifying needs, applying techniques, and measuring results for improved understanding and transformation.Therefore, the impact of the training programme on organic farming practices among the selected rural households was assessed and presented under the following headings

1. The total number of farmers that benefitted from the village-level training
2. The farmers' feedback on the effectiveness of teaching methods
3. Change of knowledge towards organic farming among selected household
4. Change of attitude towards organic farming among selected farmers
5. Adoption of composting by the selected households
6. Adoption of organic growth booster by the selected households
7. Adoption of organic methods to prevent and control pest and diseases during pre harvesting
8. Adoption of organic methods to prevent and control pest and diseases during post harvesting
9. The percentage of food grain losses before and after the training programme
10. The average eeconomic benefits derived by adoption of organic methods of pest and disease management
11. Opinion regarding adoptions of organic agricultural practices
12. Suggestions for better adoption of organic agricultural practices

1. The total number of farmers that benefitted from the village-level training

To provide a thorough insight into various aspects related to organic farming, a 5-day training programme was conducted at the village level to inculcate sound knowledge of the latest developments in the field of organic farming with a practical approach.

2. The farmers feed back on the effectiveness of teaching methods

Over 95 per cent of farmers opined that group discussion was the best method and easiest way to communicate organic agricultural practices, mainly because it placed

responsibility on every individual to think about the process of adoption, clarify doubts, and also contribute towards its solution.

2. **Change of knowledge towards organic farming practices among farmers**

Implementing any changes requires knowledge. To assess the trainees' knowledge, forty-five knowledge assessment questions were formulated. The knowledge assessment included aspects like their general perspective towards organic and inorganic farming, methods of organic farming, seed-specific practices, health hazards of inorganic manures/fertilizers/pesticides, economic benefits through income-generating activity, and organic and inorganic farming practices in the post-harvest period. Knowledge scoring was done both before and after the training programme to evaluate the impact of the training programme. The data from the above table reveals that 't' value for knowledge score was found to be 106.668 140.816& 124.331 for Marginal, Small and Large respectively which were significant at 1% per cent level. **Hence the hypothesis framed on the average knowledge scores do not confirm any significant differences before and after the training programme was rejected.**

3. Change of attitudes towards organic farming practices among trainees

The data in the above table clearly reveals that the attitude scores of all the trainees irrespective of the land holding improved and showed significant 't' values of 318.813, 18.026 and 19.053 for Marginal, Small and Large farmers respectively. Therefore, it can be inferred that the training programme had a positive impact on the attitude of trainees towards organic farming. . **Hence the hypothesis framed on the average attitude scores do not prove any significant differences before and after the training programme was rejected** .

4. The adoption level of organic agricultural practices among selected rural households

From the above Table, it is evident that the adoption Organic agricultural practices by the selected households has improved significantly (1% level) after undergoing the training programme. **Hence the hypothesis framed on the Training will significantly improve the acceptance of adoption of organic farming practices was accepted**.

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